

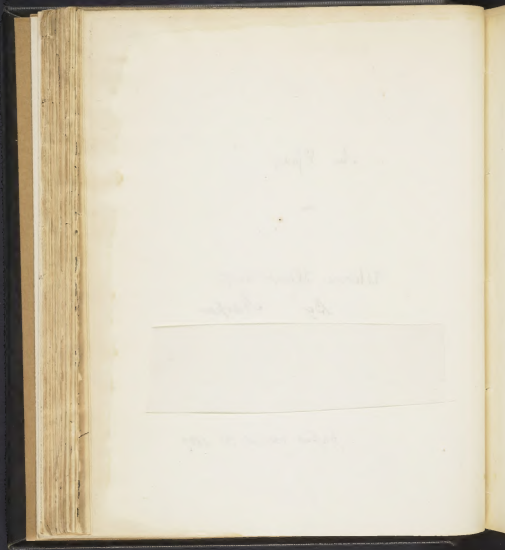
An Essay

on

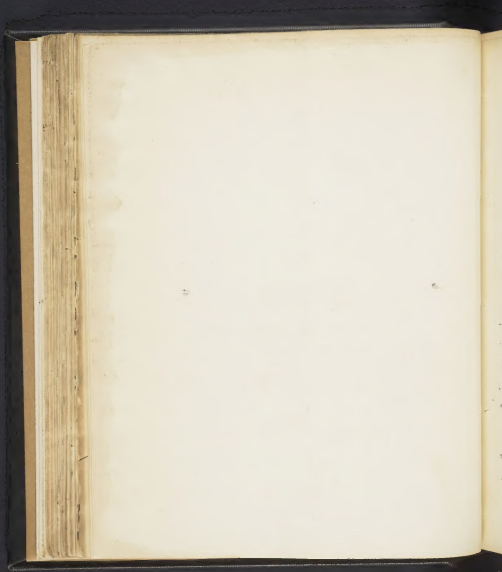
Uterine Hemorrhage.

By Harper

passed March 31, 1817.







D

Jarran Taylor M. D.

of Duery Annes County Maryland.

Sir,

I could not with justice to my feelings, close my medical education which has been prosecuted under your care, without inscribing this, the last fruits of it, to you, as an acknowledgement, not only for the care with which you have conducted my studies, but also for the numerous marks of friendship received from you.

Had I only received from you the ordinary attention of a preceptor, or a to a pupil, I should have been silent; but considering the numerous obligations you have conferred on me, I should be ungrateful, were I to omit this opportunity of declaring to you my gratitude for the solicitude you have evinced for my advancement in medical knowledge; and also of my high respect for your abilities as a Physician.

Receive then Sir, this, as a sincere testimony of my high respect, esteem and affection; and be assured, that the recollection of the many favours I have received from you, will always be ardently retained by

Your Obliged friend, and pupil

The Author.

1847

1847

1847

1847

## An Essay &c.

There is no subject which demands the attention of the practitioner of medicine more promptly, and which requires more vigorous exertions in behalf of his patient than uterine hemorrhage. Subjected to its attacks ~~are~~ only the fairer part of creation, whose constitutions are naturally delicate, and unable to sustain strong impressions of any kind, compared with that of the robust male. But it is even the more delicate of these who are most liable to attacks of uterine hemorrhage. What remedy must a profuse loss of blood make in such a constitution? Unless the discharge is speedily arrested, death must soon terminate the patient's career.

Hemorrhages from the uterus occur both in the impregnated and in the unimpregnated state of that organ. It is the former kind only which is ~~here~~ considered in this place, or those which are consequent on pregnancy. I shall arrange all the hemorrhages from the uterus under two heads. 1. Those which precede the expulsion of the fetus, and 2. Those which succeed to delivery.





## Chapter 4.

Of Hemorrhage which precedes the expulsion of the Fetus.

This we shall again divide into two kinds. 1<sup>st</sup> The Accidental or where the placenta is attached to the fundus or parietes of the uterus, and 2<sup>nd</sup> The Unavoidable or where the placenta is attached to the cervix, or over the os uteri. These two divisions I have adopted from Rigby.

### Section 1. Of Accidental Hemorrhage.

The whole inner surface of the placenta being attached to the uterus by means of a great number of tender vessels, and the membranes being in close contact with, and adhering to the inner surface of the uterus, it follows necessarily that whenever a portion of either of these, is detached hemorrhage must ensue, in consequence of the rupture of the connecting vessels, and this hemorrhage will be proportionate to the number and size of the bleeding vessels, and to the activity of the circulation.

Hemorrhage may take place at any period after conception, even before the ovum reaches the uterus. In such cases, it is owing to an imperfect <sup>action</sup> of the uterus in forming the deciduous membrane. This being thrown off, the delicate ovum has no means of attachment to the uterus and is consequently expelled as soon as it leaves the fallopian tube. After the ovum becomes attached and somewhat increased in bulk, the uterus is distended, and pains precede the expulsion, which before this were unnecessary to effect it. -

The first of the month of the year

was a day of great importance

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

and the result of the day was

the first of the month of the year

Towards the third <sup>or fourth</sup> month of pregnancy, the uterus having increased very considerably in size, the contractions become greater, the pains are very considerable and the uterine vessels having proportionally enlarged, the discharge is much more profuse, and is often attended with sickness and vomiting, but even here the hemorrhage is very seldom alarming, if the flooding is great abortion soon takes place, and puts a stop to it.

When the causes producing a separation of the placenta act slowly and in the beginning of pregnancy, the patient complains of shivering, and colic, followed by pain in the bowels and uterus, some blood is next discharged, which is connected with heat and constriction of the surface, heat, increased activity of the pulse and often sympathetic affections of the stomach and lungs; but if the causes operate suddenly, or in the advanced stages of pregnancy, the progress of the disease is more rapid, and the discharge appears without any nervous affection and neither the general system nor particular organs indicate it, until the discharge has appeared.

The ~~process~~ <sup>process</sup> which precedes miscarriage in the early part of pregnancy is very troublesome, but cannot be compared to those dreadful hemorrhages which occur after the sixth month the vessels are then so large that a separation of even a very small portion of the placenta must be attended with a very profuse discharge of blood.



## § 2. Causes of Accidental Hemorrhage.

The membranes and the uterus being connected to each other by a very tender vascular substance, it follows, that anything which increases the determination of blood to these vessels, & increases their action must endanger a separation. The operation of such a cause can be discerned in most cases of hemorrhage.

The natural dilatation & warmth of the uterus in the commencement of labour, always detaches a small portion of the membranes and consequently followed by a discharge of a small quantity of blood which is generally called the show, but is so trifling in quantity that it is not entitled to notice. It is only those causes producing hemorrhages which require the assistance of the physician which I am to notice in this essay.

The Causes of Uterine Hemorrhage, are:

I. Pletoria. Pregnant women are particularly subject to Pletoria, as is evinced by the blood drawn from them at this time which almost always the influence of the placenta. Much stimuli of any kind acting on a system thus predisposed it will readily be supposed will often cause a rupture of the vessels which constitute the bond of union of the placenta & membranes with the uterus. That species of hemorrhage of which we are now speaking is almost always attended with increased action of the vascular system. The parts in which a pletoric habit acts most readily according to Brown (to whose valuable work I am greatly indebted



throughout this stage are just the part to which the placenta is attached for there the vessels are largest and most numerous and second the cervix and os uteri because here the greatest changes are going forward, at one of these places rupture is most likely to take place.

Plethora most commonly occurs in the young and vigorous, especially those who are newly married, and of a sanguine disposition. In such persons a separation from the husband is absolutely necessary. Sometimes the hemorrhage is preceded by vicarious discharges of blood from other parts as the nose, lungs, &c. In such cases bloodletting is of immense importance.

Plethora may arise either from an increased activity of the uterine vessels or from a quiescence of them. It may also be either general or confined to the vessels of the uterus. In the latter case the patient feels a sense of weight and fulness about the lower part of the back and abdomen with slight darting pains before the attack. Women who are disposed to plethora should carefully avoid the luxuries of the table, & seasoned foods, spices and all other stimulating substances are highly injurious. It is most common in the latter bed especially in summer. Strict attention must be paid to the diet & the excitement caused and continued carefully avoided by gentle laxatives or by enemata. Nothing conduces more towards reducing and keeping up a state of plethora than moisture of the bowels.

II<sup>d</sup> When the correspondence between the growth of the membranes <sup>and of the uterus</sup> is not exact a separation must necessarily take place - premature issue.





### III<sup>d</sup>

Spasmodic actions of the uterine fibres, particularly about its surface and neck must produce a detachment of the membranes and consequently bleeding. The discharge from this cause we should suppose could always be attended with pain, or be preceded by it, but this we find is not constantly the case, and we find pain not necessarily about the back and abdomen often attend flooding from other causes. We know that action may take place in the uterine fibres without much sensation, as in the dilatation previous to delivery in natural labour, which is often entirely unattended with pain. When these spasms occur, opiate, with the warm bath will be found very serviceable in relieving them. Application of -jections into the rectum may also be used with great advantage.

IV<sup>th</sup> When stops prematurely the action of gestation may be a cause of flooding. If the expulsive contractions are speedy and ~~effective~~ the discharge is very slight and unattended with unpleasant symptoms, but if the action of the uterus is partial, irregular and tardy the discharge may be very considerable. Sometimes the partial contraction will produce a sufficient detachment to occasion a very considerable hemorrhage which will continue until coagula are formed, a stoppage induced (which by retarding the flow of blood always favours the formation of coagula) will stop the hemorrhage for a while but when the strength of the patient returns there will be forced away & the hemorrhage again recur. This goes on until the patient is exhausted and falls under it unless speedily attended to. In such cases the Decale Comminum has been highly recommended by

Some women have a particular predisposition to hemorrhage, those occurring from the slightest causes. This is more especially the case with women who are of a lax habit of body and subject to hysterical and other nervous affections. Not all the causes which induce hemorrhage are to be most sedulously avoided, as when once excited they are very apt to be charming.

2. Pressure of the placenta. It very speedily excites uterine contraction and causes the expulsion of its contents.

V. External violence. Falls or blows are the manner in which this is most commonly received. It causes hemorrhage either by exciting immediately the contractions of the uterus, or by causing too great a determination of blood to that organ. It is sometimes surprising to observe to what a degree violence can be applied with impunity, but notwithstanding this these causes are to be studiously avoided during gestation.

VI. Great exertions, so as to induce fatigue. This may be done in a great many different ways as long walks, this is particularly apt to bring on hemorrhage; dancing, riding on horseback or in a carriage over rough roads &c.

VII. The Passions of the mind, as Fear, Joy, anger, or in short, any thing which causes great mental agitation often brings on hemorrhage from the uterus.

The foregoing are the most common causes of uterine hemorrhages. There are a number of others which occasionally give rise to it. Among these may be reckoned the violent action of medicines, low diseases, and in short all the causes which produce abortion.

#### Of the Treatment of Accidental Hemorrhage.

If hemorrhage from the uterus take place in the early months of pregnancy, it may in general be easily stopped by diminishing the action of the uterine vessels, and promoting the formation of coagula. For the purpose bloodletting, and the antiphlogistic regimen is to be resorted to. The



lowels are to be kept in a solid state. A soft plug in the vagina will answer the latter indication exceedingly well. But the vessels which constitute the bond of union between the os and the uterus being at this time small, if the hemorrhage is profuse, there must be so large a portion of them ruptured, that those which remain will be insufficient to resist the Latius, which will die and consequently be expelled. In these cases particular attention must be paid to the general system, we must enjoin rest a horizontal posture, and apply cold; at the same time carefully avoiding warmth, heating drinks and stimulating articles of food at the same time using the plug. By these measures the discharge will often be stopped, but if it is not the effusion into the vagina being kept there by the plug, will so distend and overcome the resistance of the soft parts, that the os when fully detached can easily be expelled by the action of the uterus.

The farther pregnancy is advanced the more alarming does hemorrhage become. After the sixth month the slightest discharge of blood from this organ, must be immediately attended to, and the patient watched with all possible care, to prevent an increase. The vessels <sup>of the uterine</sup> are at this time prodigiously enlarged, and even the slightest rupture of them produces an alarming discharge of blood, but should the separation be still more considerable, every effort of the practitioner is required to put a stop to it; and unless this is speedily done the patient must inevitably sink under it. If the

\* The mode of proceeding when the Sacula presents itself is detailed in another place.

Hæmorrhage occurs after the seventh month, the state of the ~~uteri~~ uteri must be ascertained. By introducing a finger into the vagina, we must discover whether or not the placenta presents. We are not to conclude too hastily that this is the case, for large clots of blood about the cervix or os uteri may be easily mistaken for this insect. If it be found that the placenta does not present, and the loss of blood was not excessive, and not endanger the life of the patient, the finger should be introduced, cold applications used, and the antiphlogistic regimen carried on. Association is - admissible. The pulse is small weak and quick, and is attended with great gastric irritability, nausea, and a state approaching to syncope; the state of the system is very favorable to the formation of coagula, & very often the hæmorrhage will cease. Advantages should be taken of this state of the system to prevent its recurrence, the eye of the practitioner should never be for a moment off his patient until she is free from the danger of a relapse. This operation should only be viewed as a deceitful calm, for as soon as the patient has a little recovered her strength, the hæmorrhage will often recur with renovated violence.

If notwithstanding all our efforts the hæmorrhage goes so far as to endanger the life of the patient, delivery must be performed as the last resource. This is seldom necessary however before the parts are sufficiently relaxed to admit of its being performed with facility.





When the discharge continues violent the pulse becomes small, weak and irregular, the stomach is disordered and vomits, often sick; and if the hemorrhage is not checked by delirium the patient so energy of the circulation is diminished, the muscles contract feebly, the surface becomes cold and clammy, the face pale, the breathing is imperfect with sighing attended with repeated faintings, and finally convulsions close the scene.

I shall next very briefly consider each of the remedies used in uterine hemorrhage. The first of these which is to be attended to is Rest. As soon as a patient is attacked she should be placed in a horizontal posture and a state of absolute rest enjoined. Every part of the antiphlogistic treatment must be strictly attended to. The patient is to be restricted to a low diet until the discharge of blood has been so great as to produce great debility. The diet in these cases should be generous.

Cold applications, are at the same time to be employed. Cloths dipped in ice cold water may be applied to the abdomen, pubes, back and extremities. The room in which the patient is placed if possible, should be spacious, freely ventilated and the temperature kept low. By these simple means, the discharge when moderate, and in the commencement of pregnancy may often be stopped. We are however to be cautious not to carry the use of cold too far so as to diminish the temperature much below its natural standard; or when debility has supervened great circumspection is to be observed in the employment of cold; the system might be



reduced so low that reaction could not take place, and the patient would sink. It is even necessary in some instances to apply moderate warmth; this is especially the case, when the discharge has been profuse, or long continued, and we find the patient sinking but care must be taken here not to run into the opposite extreme, and apply too much heat.

The next remedy of which I am to speak is Bloodletting. When the patient is of a plethoric habit, with a strong full pulse, especially if the patient is young and the hemorrhage moderate bloodletting will be of the greatest service. The lancet must never be employed so far as to induce debility, but we are at the same time to recollect, that the detachment of the vessels which produces the discharge is produced by increased action on the great trunks of the uterine vessels and therefore that blood detracted from the general system will diminish the flow, not only by lessening the size of the vessels, and moderating their action but will also take off determination of blood to the uterus and thus prevent a further laceration of the vessels, and consequent increase of the hemorrhage.

Plugging the vagina is a very important part of the treatment of uterine hemorrhage. A soft handkerchief, or something of the kind, is to be employed for this purpose, first dip it in oil, and wring it out then gradually introduce it, one portion after another, with the finger into the vagina. Sometimes a little powdered ice may be pushed up before or a piece of ice folded in,

• "B = deloqua"

The cloth will greatly increase its efficacy. Be careful however not to con-  
-tinue the application of the cold long enough to injure the tone of the parts.  
The closer resembles the formation of coagula is a tendency to check hemorrhage  
for this purpose nothing is more serviceable than the plug. If the discharging  
is not very great, it will often stop immediately after the introduction of the plug  
but the patient will be by no means safe for some time after. These coagula  
if ever detached the hemorrhage will again recur, and if care is not taken  
to prevent it, the flooding may be repeated in this manner until the strength  
of the patient is exhausted. On the first appearance of the discharge, when  
the os uteri and the external soft parts are firm and unyielding, nothing is  
more advantageous than the plug; but when the hemorrhage has been profuse  
or frequently repeated, and the circumstances of the patient demand more ac-  
-tive practice and prompt delivery then the plug cannot be proper; if trusted  
to, it may be attended with fatal and deceitful effects. We can indeed  
restrain the hemorrhage from appearing outwardly but there have been cases  
as and these instances ought to be constantly remembered in which the blood  
has collected within the uterus which having lost all power, has become relax-  
-ed and slowly enlarged with coagula: the strength was decreased - the bow-  
-els become inflated - the belly swelled beyond its size in the next month  
although the patient may not have been near that period, and in these cir-  
-cumstances whilst an inattentive practitioner has perhaps concluded that the

+ B. 1000.

+ B. 1000. vol 2. p. 329.

1000. B. 1000. vol 2. p. 329. and at Chepman. 5th Lecture on the Law of Medicine.

was well with regard to the hemorrhage, the patient has expired, or lived only long enough to permit the child to be extracted. This shows the necessity of having our eyes continually on the patient.

The Digitalis is very strongly recommended in uterine hemorrhage by Arnica. In cases where the vascular action is considerable it would undoubtedly be sometimes beneficial, by virtue of its sedative power, but it requires a great deal of discrimination in its use. If the system is in a state approaching debility, or if debility has already supervened the digitalis will aggravate instead of relieving the hemorrhage; it is moreover very uncertain in its operation even very small doses sometimes producing violent effects. Upon the whole I think the digitalis should seldom be employed in uterine hemorrhage especially as we have other actions more certainly, and more decidedly efficacious.

Emetic doses of emetics, have been highly recommended in uterine hemorrhage. Cullen says "it has been found, and I myself, in some instances have found that nauseating doses of emetics have been of service in several instances of uterine hemorrhage." The article generally employed is the Hyocyanus. Dr Chapman prefers it to every other remedy, in this disease, has made of using it is in combination with opium, two grains of the former to half a grain of the latter to be repeated every two hours. When given in this manner he has known the discharge almost instantaneously cease. The efficacy of the Hyocyanus is very greatly increased by combining Dover's into it. At our best nausea is to be felt

~ H/2 Let ~ Mat. Med



up, but can not be taken due to its toxic qualities as this will produce a severe  
the discharge. It is very remarkable that in a thus employed its operation appears  
almost specific.

The Acetate of Lead, or Saccharum Saturni was a most a greater  
character in checking hemorrhage from the uterus than any other article. To  
the late Professor Pearson <sup>not any</sup> indebted for having dissipated the idle fears of pro-  
fession in using this medicine and for introducing it to the place it now holds  
in our list of remedies. In many cases of bleeding "says he" particularly from the  
more uterine intestines and lungs. I have exhibited the acetate of lead, gene-  
rally in combination with a pittance of opium, and sometimes with a portion of Hæma-  
turin. I seldom & never been disappointed in my expectations of benefit from the  
medicine, which of all the articles of the materia medica seems to me to possess the  
greatest command over the movements of the arterial system. In no instances have  
I perceived any dangers and rarely any temporary inconvenience from the employ-  
ment of lead. I do not doubt indeed that it is an article capable of operating  
and endangering the system and even destroying life and accordingly would not advise  
the young practitioner to continue the internal employment of lead, for more than  
a few days in succession, and it is fortunate that in a great majority of cases it  
is not necessary to persist in its use for any considerable length of time, for it  
almost always shows its good effects very soon.

"In regard to the dose of the Saccharum Saturni" continues he, "this must often

"Bureau of the ... 21

+ Mr. ... in ...

o ... in ...

hasty defense when the volume of the hemorrhage. In uterine bleedings I have often given 1 to the extent of two or three grains more or less until in one case I observed he recovered immediately on a dose of eight grains without any bad effects. Dr. Chapman mentions a case in which he gave a draught of the sugar of lead in twenty four hours without any unpleasant consequences. He suggests that one reason why it does good is because it is ~~because it is given~~ given in too minute doses and also that would be the effects of ten grains or a scruple at a dose? He also relates a case in which a woman took by mistake two drachms of the acetate of lead with no other effects than a uterine purgative.

If the vascular action is great it must be reduced by venesection whenever the use of any internal remedy for this can have but little or no effect while the system is highly excited. It is by moderating the local action of the uterine vessels that the lead is useful. Dr. Sarsy prefers a combination of the lead with belladonna and opium in the following rhubarb.

Rf Saccharum Saturni Three grains

Hyoscy. Hyoscyam. each one grain. This is to be taken every one or two hours or as often as the emergency of the case requires. He says when thus used he knows of nothing so efficacious in uterine hemorrhage.

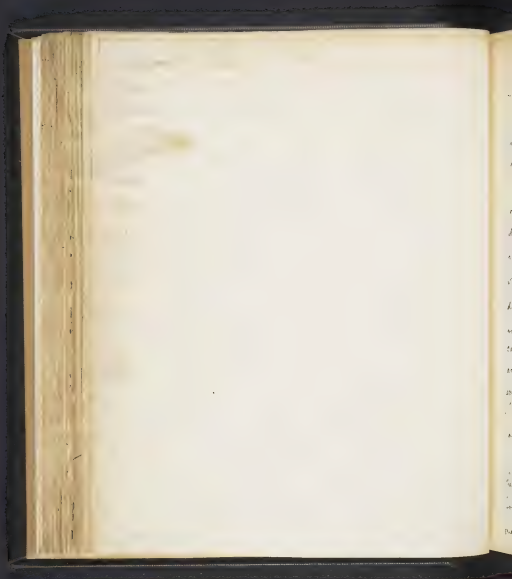
Dr. De Wees says he has in some cases "found" when opium had no effect giving a grain of powdered Calomel [to the acetate of lead] has been useful. This however is only to be used where the system is prostrated from the long continuance or excess

- 1/2 p. 273 L. S. 3 in. 1/2.

of the meninges. "I have also met with some cases say it" where the uterus  
has not reduced its size at the opening of the month and where it has produced an  
almost instantaneous one when it is a matter of cold water with 3j of Tinct. Viburni has  
been given as an emmenagogue.

Astringent injections into the uterus will very often be successful. Dr. Bence  
says he has frequently succeeded in checking considerable discharges in the early  
months of pregnancy by having a strong solution of saccharum stativum thrown  
up the vagina. Care should be taken in using them not to chase away any coagu-  
la which may have formed over the orifices of the ruptured vessels as the discharge  
would thereby be increased. In general however these injections are decidedly inju-  
-rious in efficacy to the plug.

It remains now very briefly to consider each of the remedies employed in  
uterine hemorrhage. I shall not make a few general observations on the reme-  
-dies on which they are to be used. Paled to a patient who has a discharge  
of blood from the uterus. We are to have her immediately placed in a horri-  
-ble posture and enjoy absolute rest. The exercise of the room is to be moderated  
and cold applications made to the uterus and other parts of the body. The plug is also  
to be introduced into the vagina. If the pulse is full, hard and strong and the  
countenance suffused with bloodletting must be had recourse to immediately. We are  
to bear in mind that the hemorrhage arises from and is kept up principally by  
an increased activity of the uterine vessels and that whatever diminishes this



which must moderate the action of blood from them. To meet this end nothing can be compared to venesection. If, as he said, that it left to nature the discharges itself will relieve the system, but we know that the operations of nature when once interrupted, are irregular, and uncertain, and can be no means be trusted to rely on, the hemorrhage will go on and coagulatiois.

After the arterial action has been reduced, the opium must be given in the preparations of the acetate of Lead or to be given. If the latter is used it must be used freely, the dose must be graduated to the violence of the hemorrhage. If the flooding is serious the dose must be large. This is not a case in which we can cautiously test the efficacy of a remedy by exhibiting it in small doses. Indolence, a timidity is fatal to the patient. A disease so alarming, so violent, and so quick in its progress as a profuse hemorrhage from the uterus, can never be trifled with, and while the practitioner is deliberating with himself and hesitating how to proceed, he will have the mortification to see his patient expire. It is only by the vigorous, and energetic employment of the most powerful resources of our art that we can ever expect to be successful in such a case as the one before us.

Should the hemorrhage continue so long as to induce great debility the treatment must be changed; gentle warmth must be applied to the surface of the body particularly to the extremities. Small quantities of cordials and a generous diet may also be allowed together with moderate doses of opium. But sometimes





the exhaustion will be so great as to require much stronger stimuli, as wine, and even undiluted brandy freely given, together with the free use of opium. Attention must also be paid to the condition of the alimentary canal. Constipation must be guarded against by the use of gentle laxatives, and enemas <sup>may be</sup> used only be used before debility has supervened.

By properly attending to the discharge, and adapting our remedies to the state of the system, we can very often just a stop to the hemorrhage and enable the woman to go on to the full period of utero-gestation. But if they all fail and the flooding is alarming, the membranes must be ruptured. If the os uteri is sufficiently dilated this may be done with the finger, but if it is not, they must be perforated by a probe introduced through the os uteri. This will generally induce strong contractions of the uterus, by which the hemorrhage will be suspended and the fetus expelled. The woman however is never to be considered out of danger until she is delivered. Should the hemorrhage recur we must perform delivery as the dernier resort.

Before the sixth month of pregnancy, it would be extremely difficult to have recourse to manual assistance, as the parts are so hard and unyielding, that the hand could not be introduced without violence to them. But ultimately this is necessary, for a laceration of the vessels which connect the placenta to the uterus capable of producing a hemorrhage which would endanger the life of the patient would not leave a sufficiency of vessels to nourish the fetus, ~~and so~~ and so



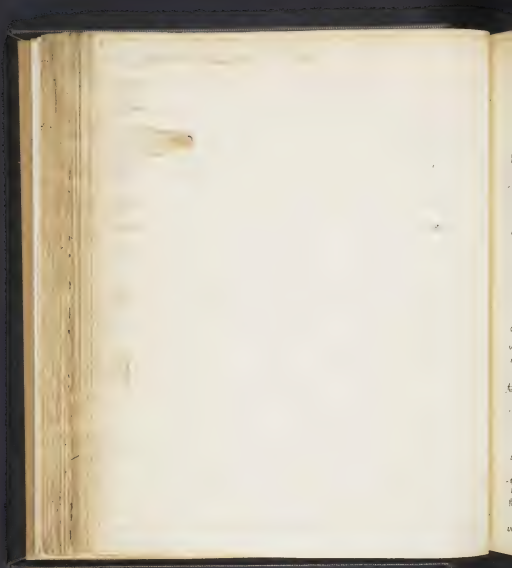
in most cases more very slight, & is readily expelled by the uterine action. Manual assistance is entirely unnecessary, except in some cases, according to Osburn where the os is still to be found by examination to have half escaped from the uterus, which does not seem to complete the dilatation. In such a case by moving it with the finger from one side to the other it will be detached and fall into the vagina. Violence is not to be employed; the intention is more to solicit the contractions of the uterus than forcibly to detach the os. All we have to do in the floodings which occur in the early months of pregnancy, when we find that abortion cannot be prevented, and if the parts are rigid is, to keep sleeping until they are dilated sufficiently, & permit the contents of the uterus to escape with ease and without artificial assistance.

After this period the difficulty is not generally so great, and the hand will be admitted without much trouble. Sometimes however the os will be found firm and rigid, force must never be used in such cases to dilate the hand. But if the patient means to be delivered we are not always to wait until the os is dilated, "as we might wait for the opening of the uterus, till it was too late to relieve the patient by turning the child; and for this reason it seems right, that we should sometimes be as much influenced by the os uteri being in a state capable of dilatation without violence, as by its being really open; when this is the case therefore, if the woman's situation demand speedy assistance we should not hesitate to attempt delivery, even though to the touch

" Bigby or Menna Kewaschago p. 20.

the uterus seems quite shut more especially in making the attempt to draw  
know before we can safely have seized the uterus rather it is safe to proceed  
if the womb readily gives way, and the hand slips with ease, we may be certain  
no harm will follow and may on that account confidently proceed to  
-ing; but if on the contrary there immediately come on a contraction of  
the uterus, that, in a purse like manner tightly surrounds the fingers, it will  
prove difficult, and we ought therefore to desist, and wait till the part be  
more relaxed by pain a discharge as difficult in these circumstances with  
true exterior & danger.\* When the uterus is in such a state as to obstruct  
of the introduction of the hand, we are to pass it up and seize the feet of  
the child which are to be brought down, and the child extracted. The  
child is not to be brought away so precipitately. If it is brought along very  
speedily, the uterus will not have sufficient time to adapt itself to it, and  
it will not contract after the delivery is accomplished in consequence  
of which the hemorrhage will continue with increased violence. But if  
the delivery is performed slowly, it allows the uterus time to contract which  
obliterates the mouths of the bleeding vessels and stops the discharge of blood.

Sometimes hemorrhage occurs after the child's head has passed through  
the superior strait into the cavity of the pelvis. Should we be called to a patient  
in whom the process of labour had proceeded thus far, who was flooding co-  
-piously, and the pains were inefficient to expel the child it would be im-

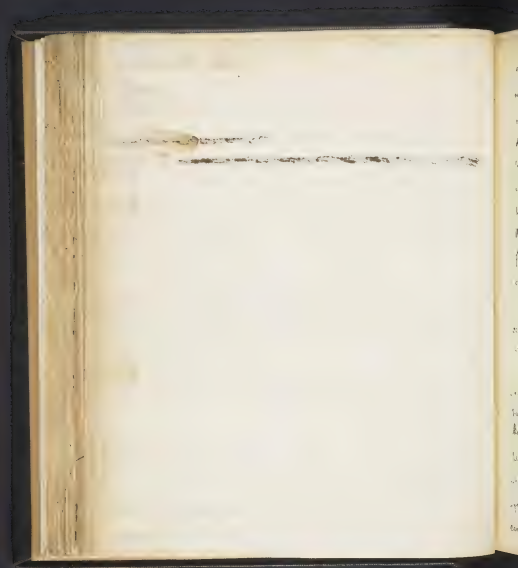


possible to pull up the head and turn the child. Therefore we shall be obliged to have recourse to the forceps if the head is sufficiently low. Generally it is not difficult to apply them in this situation, and the head may be easily brought down and delivered. ~~But to apply them in this situation is not without danger, and it is not without danger to the child. The 22<sup>nd</sup> an-~~  
 tions relative to the easy extraction of the child are to be observed in this case as in the one already mentioned. Sometimes the hemorrhage will continue after delivery; those cases I shall treat of in another place.

### Section 2<sup>d</sup> Of Unavoidable Hemorrhage.

By an unavoidable hemorrhage from the uterus, I mean a discharge of blood from that organ, in consequence of the <sup>separation of the</sup> placenta to the cervix, or os uteri. A majority of the cases of uterine hemorrhage which occur towards the latter end of pregnancy arise from this cause. Amms says that at least one third of those which have fallen under his notice has arisen from this cause, and others have concurred in this statement.

If the placenta is fixed to the cervix or os uteri, no inconvenience will result from it until about the end of the seventh month. When these parts begin to dilate preparatory to delivery a rupture of the vessels which connect the placenta to them must necessarily take place and consequently hemorrhage ensue. Called to a patient after this time who has a considerable discharge

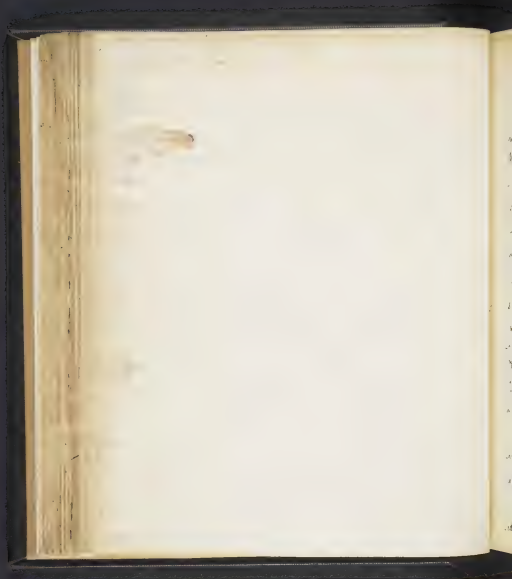




of blood from the uterus, we should immediately ascertain the state of the uterus; for this purpose the finger is to be introduced, and a careful examination made; if the placenta presents and is the cause of the flooding, it can be distinguished by its soft spongy feel the under part of the uterus at the same time has a thicker feel than usual. By this means we can readily distinguish it from the membranes, but there is a circumstance which is well calculated to deceive the inexperienced practitioner, large clots of blood often form in the uterus during hemorrhage which are exceedingly difficult to distinguish from the placenta. Care must be taken not to fall into this error as it may cause the patient to be delivered sometimes unnecessarily and improperly.

Any part of the placenta may be situated over the os uteri, either the centre or one of its edges; if it be the latter, the adhesion on one side may be entirely separated and thus leave a very considerable bleeding surface.

If any ascertain that the placenta presents, we know that the hemorrhage must necessarily continue until the size of the uterus is diminished by taking away its contents; and that as the dilatation increases more vessels will be separated. The hemorrhage will increase; and long before the actual onset of labour the loss of blood will destroy the labour. Under these circumstances our only resort is to delivery. At the commencement when there is no rupture, the soft parts will be found relaxed and unyielding; and the hand cannot be introduced without violence to the canal; but in this state of things



there is no receptacle for receiving the blood. In introducing a plug into the orifice and preventing the escape of the blood before the dissection becomes difficult & and unless the force of the patient the relaxation of the parts will be so great as to admit the blood to pass in without any plug. But the sudden removal of the plug will cause a violent reaction of the lungs and will be able to force the blood and it be raised or expelled but we may rest assured that the lower life are still very considerable and that the life of the heart is not yet in great danger. When we find that the danger can be entered into the uterus the plug is carried between the neck of the uterus and the placenta separating them from each other. This plug must be thrust through the substance of the placenta. Destroying the connection between them is no obstacle to passing the hand through its substance because this is the case when passed over the os uteri than in any other situation and it is not necessary to cut it. The recreated parts will continue to increase and so on the result. Every time the placenta is removed from the uterus there is a decrease in consequence of the circulation in the cord being stopped by rupture.

The relaxation of the uterus and placenta will always increase the hemorrhage very considerably for a time but it will be stopped as soon as the child is brought <sup>from</sup> the body will act as a plug and put an end to it.

The placenta being partially detached in this manner a new descent of the hand is to be passed on into the uterus and the child moved and delivered.

See also N.Y. Acad. Sci. Vol. 11, p. 342 by H. D. Davenport.

ced by the fact. The placenta is afterwards readily brought away in in-  
-tense contractions and the hemorrhage ceases. The delivery is not to be hurried  
but time must be allowed for the uterus to contract as the child is brought away  
for the reasons already explained in another place.

Excitation sometimes goes on nearly to the full period with the placenta  
is attached to the cervix or is even specially when the adhering surfaces are  
strongly connected before hemorrhage subsides and it has been even stopped  
for a considerable time when it has once appeared. But when it has been occur-  
-red that the placenta presents the patient should not be subjected  
to the hazard of another violent attack merely to gain a short respite from pain  
any especially as we know that it must be eventually resorted to and that the  
woman is never safe until the possibility of further hemorrhage is excluded  
by expelling the size of the uterine vessels which can only be accomplished by  
taking away its contents and suffering it to contract.



## Chap. 2:

Of Hemorrhage subsequent to the expulsion of the Placenta.

This I shall again divide into two kinds, 1<sup>st</sup> Hemorrhage from the Retention of the Placenta and 2<sup>d</sup> Hemorrhage which occurs after the Placenta has been removed in consequence of the want of contractile power in the uterus.

### Section 1<sup>st</sup>

#### Of Hemorrhage from Retention of the Placenta.

In natural labour after the expulsion of the child, the uterus contracts, and separates the placenta and membranes. This always occasions a small discharge of blood: but if the contraction is regular the quantity lost is very trifling, and of no importance. If the contractions however, are partial or irregular, so as to detach them partially, and is not sufficiently strong to destroy the connection which subsists between them and the uterus, then hemorrhage must necessarily ensue which will be more or less violent, in proportion to the number and diameter of the disengaged vessels, and to the power with which the evacuation is carried on.

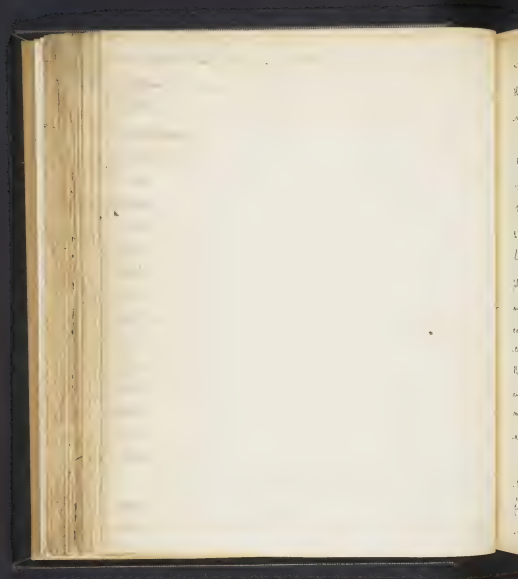
This species of hemorrhage is often a continuation of that which precedes delivery, and especially where the loss of blood has been so great as to induce great debility, thereby lessening the contractile power of the uterus. According to Osier hemorrhage will more especially appear, if the labour has been tedious.

to James B. B. vol. 2, p. 62



and the child at last expelled suddenly by a strong but brief expiratory effort. It would appear in these cases as if the uterus, wearied with repeated and unsuccessful attempts to expel the child, collects its whole power, and by one grand effort over-rides the pains and violently detaches the placenta but is so completely exhausted by this exertion that it has not strength enough remaining to effect its own contractions. - The hemorrhage therefore appears very soon after delivery and before the placenta has come away. It is profuse and produces the usual effects of hemorrhage on the system, and these effects are greater, and more speedy than those which follow from hemorrhage before delivery, for the loss is instant and extensive. The first gush indeed does not produce great debility, but cause it consisted chiefly of blood which circulated in the uterus and is not taken directly from the general system: and the separation of the placenta not being totally effected at once, the loss at first is more slow. But immediately after the effect appears in all its danger, and it is not unusual for the woman to not survive, to die within ten minutes after the birth of the child. - This statement shows very clearly the importance of the caution I have made in another place never to perform delivery too precipitately, as it does not allow the uterus time to contract and adapt itself to its new situation. The progress of the child should be somewhat retarded in order to allow this effect to take place.

I do not conceive it to be necessary for me in this place to enter into a detail with regard to the time which the placenta may be left in the



utero without the same injuries by its irritation or by subjecting the patient to the danger of hemorrhage. It is sufficient for me to notice it after the hemorrhage has occurred - it is not morality to require the patient unless it be checked.

We must not in those cases of hemorrhage which we are now considering attempt to extract the placenta suddenly and forcibly, either by pulling at the cord, or by introducing the hand, and forcibly detaching it at once. By the first method we should be very apt to produce a inversion of the uterus, or to lacerate the cord; and by the second we should injure the uterus very considerably by the violence which would be necessary in order to effect it. The retention of the placenta is not necessary in order to effect it. The retention of the placenta is not the cause of "the flooding" but it is a joint effect, arising from the same cause, namely, debility, or atony of the uterus. Therefore simply detaching the placenta would not check the hemorrhage unless contractions were excited, on the contrary the flow <sup>of blood</sup> should be aggravated by increasing the number of the ruptured vessels. We are not to use harsh means to remove the placenta, but must endeavour to excite the uterus to contraction and cause it to be thus self-created.

For the purpose of removing the torpor of the uterus we are to use friction on the abdomen. There are to be made by rubbing the hand over the part for some time, a massage applied gently firmly around the abdomen will conduce to the same end. Cold applications in the manner already mentioned are of

+ De Meuse's Banquetogue p. 236.

the first introduction the child is to be treated & one gently held.

In order to facilitate the separation of the placenta a finger must be introduced along the cord which is to be gently pressed down above the point of insertion of the uterus, or rupture the cord which lead is of great importance as a guide to the placenta when we are obliged to introduce the hand. By this pressure on the cord alone we shall sometimes succeed, but if the tension of the uterus is very great, the hand must be introduced, and carried along the cord to the placenta. When it reaches there the head of it should be introduced gently & so must that moves and the uterus where it is implanted, which will commonly cause uterine cause uterine contractions and cause both the hand and placenta to be expelled together.

Sometimes the adhesion of a part of the placenta is so strong that the natural action of the uterus cannot detach it. Here the other parts of its connection being soft will be destroyed, and give rise to a tedious discharge. In general these adhesions are not equally strict in all parts. For the most part only a few lobes are thus detached as it were with the substance of the uterus; but there may be found at any part of the placenta. If on all the placenta being detached except this indurated portion, the hemorrhage may be very considerable. In this state of things we must proceed to destroy these adhesions, and to bring away the placenta. The cord is to be wrapped in a dry cloth and pulled gently down, at the same time the fingers of the other hand



one is to be raised up under the arch of the pubes, and pressed against the cord  
so as to make that act over them, as on a pulley. This action should general-  
ly be in the direction of the axis of the superior strait, but must be varied accord-  
ing to the different situations of the placenta &c. When it becomes necessary to  
help the hand into the uterus to bring away the placenta, the fingers are to be in-  
troduced along the cord, and pressed between the uterus and placenta so as  
to receive the latter into the hollow of the hand, as little violence must be used  
in this operation as is possible. As a portion of the placenta is always detached  
in cases of flooding that part should be found and the separation commenced  
there. The uterus must always be fixed in one situation while we are deal-  
ing by pressure on the abdomen made by an assistant. After the adhesions  
have been thus destroyed the placenta is not to be hastily drawn away but ex-  
tracted slowly so as to allow the uterus time to contract.

When the placenta has been removed the uterus is found to be  
that body which contracts in the uterus, and which is capable of contracting.  
This state of the uterus is a necessary consequence of the descent of the  
child. When the uterus is found to be in a state of contraction after the child  
is born, it is not needful to separate the placenta, but it is necessary to keep the  
perineum in a state of contraction, so that the uterus forms an inveterate tumour  
in the belly, we may observe a hardness of the uterus. If neither in form nor





must be very good - the placenta soon improves will be so far from  
 ed. not to prevent the introduction of the cord. The very same the same  
 and will soon find out the placenta is not in the same part of the  
 uterus. Following the cord in whole or directed to a small opening near  
 which is not passed on any other course the same with the same  
 perceive the placenta is in a suitable place or cavity of the uterus.  
 When it has been examined we must never immediately to divide the one  
 time in - but a short time to pass through it. Slipping the finger  
 along the cord it must be gradually introduced into the os uteri, where  
 not a word in some few. By inserting first one finger and then another  
 we shall in a short time enabled to explore and divide the cavity with  
 extract the placenta, which will if it is found already detached. If  
 it must be separated in the manner already stated. The upper portion of  
 uterus must be excited to contract when the hand is withdrawn with the  
 force would again form and subject the patient to the same danger to which  
 she was before exposed. should much difficulty be found in overcoming the  
 uterine spasm cold water on the abdomen will remove the contraction.  
 The hand much more easily accomplished.

It is not to be forgotten that on our second attempt this state of the uterus  
 for if the patient is already in a state of debility from previous blood loss, a  
 frequent quantity might be offered with a very early tendency to faintness without being  
 in a state of.

[illegible]

If a portion of the placenta has been left in situ in the uterus -  
 even if a coagulum of its substance is found - must be introduced  
 by the hand and is felt it must be detached and brought away. It  
 cannot easily be found we are not averse to our attempts, we must  
 however be careful to remove the coagulum which may have  
 formed on the surfaces of the bleeding vessels.

Drugs recommended in this case, plunging the vagina and even the  
 uterus with coffee the blood and excite uterine contractions. We may  
 use amongst some cold and astringent fluid for the same purpose, either  
 a full stream of cold water into the uterus from a large syringe or  
 way of washing out the portion of placenta if it have become nearly detached.  
 A gentle emetic also sometimes promotes the expulsion.

In premature labour the management of the placenta when retain-  
 ed is different from when it has been laid down. Before the third month the  
 fetus and its umbilical cord usually come away together and often that some  
 of the fetus comes just leaving the after birth behind as in natural labour.  
 In general the uterus will contract readily and expel these but sometimes  
 this is not the case. We cannot manage the placenta here as we do in the  
 full period of development for the cord is so slender and weak that we  
 cannot pull by that as the slightest force would rupture it, and leave the  
 placenta behind.

a.  $\frac{1}{n} \sum_{i=1}^n x_i^2 - (\bar{x})^2$

The difficulty is increased, namely, to extract an ovum, adherent to the inner of the uterine wall. It is impossible to introduce the hand into the uterus, without great difficulty and violence in consequence of the rigidity of the external soft parts. When the flooding is moderate or scanty we may content ourselves with soliciting the action of the uterus, and endeavoring to make it contract with sufficient energy to finish the detachment and complete the expulsion of the placenta.

But when the discharge of blood is very profuse, it requires a more active practice than this. "If we cannot extract the placenta immediately, we must without delay stop the escape and hinder the flood from increasing, and by that means cause the formation of a coagulum, which by actually sealing the cavity of the uterus may stop the mouths of the draining vessels and check the violence of the hemorrhage. For this purpose we may introduce a piece of warm silk into the neck of the uterus; or if we can a plug of very fine tow or lint moistened with vinegar and water, with which the os uterini may entirely be filled, we must take care to support this plug indirectly, like the uterus irritated by its presence, by Rubbing the os uterini and the abdominal convulsions with sufficient force to deliver itself of them all." The abdomen must also be supported by means of a bandage, gently but firmly applied.

"The Esculentum or Esqot, promises to be a very valuable remedy in this species of hemorrhage in consequence of the property which it possesses of exciting



contractions of the uterus. Dr James mentions one case of flooding previous to delivery of the child, where the action of the uterus had ceased, in which he derived great benefit from this article. He gave twenty grains of the medicine, which speedily operated, ten contractions repeated in succession, he could not stop to the hemorrhage.

---

### Section 2<sup>d</sup>

(f) Hemorrhage which occurs after the Placenta has been removed.

Separation and expulsion of the placenta is always followed by a discharge of blood, which varies in quantity in different women; in some it is very small and in others very profuse so as suddenly to reduce the patient's strength very low especially if there was much hemorrhage previous to the exclusion of the placenta. This hemorrhage may be caused by various irregular contractions of the uterus, by alone, or by inversion of that organ. The latter sometimes gives rise to very troublesome discharges of blood, which will continue until the fundus is pushed up, and the uterus contracts. The longer the inversion continues, the more difficult will its management become. It will therefore be proper in all cases to ascertain whether the hemorrhage is a consequence of this affection or if it exists and is not attended to, our attempts to relieve the woman will be ineffectual.

" It has often been a matter of great surprise to me says Silliman





"when I have seen a patient bear a sudden discharge of what seemed an enormous quantity of blood on the coming away of the placenta without fainting or showing any signs of the common consequences of great loss of blood, but it may be explained in this manner. I could every drop of blood which circulates in the uterus be discharged in an instant it would be of no immediate consequence to the patient the very existence of the uterus not being necessary for her life. When all this blood is discharged the uterus should contract freely so that the vessels should be reduced to a small size this would not be a continuance or return of the hemorrhage, and the patient would exhibit no signs of suffering from that which had already happened. But after the discharge of the blood contained in the vessels of the uterus as before stated there should be no contraction of the uterus, for the vessels remaining of the same size, and the communication between the body and the uterus being preserved open as in pregnancy; the vessels of the uterus would be replenished from the constitution and the same effect would be produced in the patient, as if it were really lost: should this second quantity of blood supplied to the uterus, be discharged, and another be claimed from the constitution then according to the quantity demanded, and the number of times the demand was made would it course be a danger to the patient. In some cases the hemorrhage does not follow the extraction of the placenta immediately but comes on after a certain time, and then it may

x *Platanus* vol 2. 184.

be supposed, that the communication between the body and the uterus was closed, but not being confirmed was opened again by some effort too soon made, or more violent than the situation of the patient could endure."

"The treatment of this species of flooding very nearly resembles the former. The indications of cure in both is, to excite uterine contractions, which by closing the open mouths of the vessels must necessarily stop the flow of blood. General irritations of the os uteri will of ten effect this; but it is prudent at the same time to use all the auxiliary means already recommended in the preceding species of hemorrhage. Cold applications will powerfully assist in producing this effect. Cloths dipped in cold water, or vinegar and water may be placed on the pubes &c. as already directed or the water may be dashed on the patient. Burns recommends in obstinate cases to throw it on with a syringe. This will much more certainly produce contractions than the simple application of the cold water. He also advises us to carry a sponge filled with ice-cold water into the uterus "may" suppose ice chips has with happy effects been introduced into the womb." Stimulating injections thrown into the rectum will also sometimes be of great advantage.

Injecting into the os uteri will be of great service, but great care must be taken to prevent the effusion of blood from being so great as to endanger the life of the patient; this support to the uterus may be made by applying a bandage pretty firmly around the abdomen, and by compressing the u-



turn with the fingers. If this hemorrhage is suffered to go on in consequence of being unnoticed, or neglecting the debility of the patient increased until she is exhausted her pulse becomes weak and quick, her countenance pale extremities cold her respiration is languid with sighing she becomes restless and gazes wildly around her, faintings supervene and finally death closes the scenes. Sometimes the dissection from this cause is common the size of it is even stated to increase beyond what it was before it began.

The bandage we will prevent this great accumulation and the plug by preventing the escape of the blood will cause coagula to be formed on the surfaces of the bleeding vessels, and thus put a stop to the hemorrhage. These coagula are to be permitted to remain until they are thrown off by the actions of the uterus, when the woman will be free from further danger.

When the hemorrhage has greatly reduced the patient cordial stimulants with a nourishing diet will be necessary, wine &c. are to be given in small quantities, and if let repeated for a considerable time, or until the strength is recruited, they must then be omitted or they will excite fever or inflammation of the uterus. The application of heat to the extremities will also powerfully assist the last named articles.

Levin has been highly extolled under these circumstances by Dr Hamilton and others. They would teach us to believe it improper but the authorities in its favor are so very respectable that under such circumstances there should be no hesitation.



in prescribing it. Burns says "they are among the safest, and best cordials we can employ, and ought in every instance to be exhibited. The dose ought to be proportioned to the emergency, varying from fifty to sixty drops of liquid Laudanum. In some instances when the debility was great, a hundred drops of the tincture, or five grains of solid opium, have been given at once, and afterwards three grains every hour, until the patient was out of danger. It does this practice "say he," against which I was at first prejudiced from <sup>them</sup> ever prevent the contraction of the uterus, or produce afterwards any bad effect. Opiate supply the place of wine, and are infinitely safer." The efficacy of the opium would, I have no doubt, be greatly increased by the addition of the <sup>acetic</sup> lead and ipecacuanha as formerly mentioned.

The patient must in all these cases be placed in a horizontal posture, and kept in a state of absolute rest. This must be particularly enjoined, as the slightest motion, such as rising suddenly in bed, when the discharge has been very profuse will induce syncope, and even death.

I have now brought to a close this very imperfect essay, but I am persuaded that by a proper exhibition of the remedies mentioned, and paying a strict attention to the diet &c. of the patient during her convalescence, the disease alarming as it appears will seldom be a fatal one. But these remedies require great judgment in their application, and the most prompt, assiduous, and unswerving attention on the part of the practitioner. He should always





conceive that on him the life of his patient depends, and he should never for a moment absent himself from her unless impelled by necessity, until she is free from danger. By such conduct he will have the satisfaction of seeing persons restored to their families and friends, who but for him would have slept in the arms of death. Nothing can afford so much pleasure to the physician of sensibility, as the emanations of gratitude which arise from those persons, and the friends of those persons, whom he has rescued from diseases which would inevitably have destroyed them. And even should he not meet with this reward, he will always possess a consciousness of having performed a good action, which will amply compensate him, for all the fatigue and care he has undergone in the management of their diseases.

Having now brought to a conclusion this very imperfect Essay, I cannot better my leave of this University, without expressing to its Professors, as one of their pupils, the high sense I entertain, of the ability, and zeal with which they teach the healing art. Fostered by their guardianship, the science of medicine in the United States can never degenerate from the character it now holds, but must always approach nearer to perfection. Many of the evils of suffering humanity have been done away; but many still remain to be eradicated, and we have every reason to expect that the number will continually diminish, while the science continues to be cultivated with the spirit of inquiry and ardor of research which characterise this flourishing institution.

